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Software Programmable Signal Processing Platform Analysis.

Exercise Set 2

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Exercise 2.1 Write a short C program exhibiting a type error. Run it using your compiler and note the error message.

Exercise 2.2 Write a C program containing an undeclared identifier. What mechanism in the compiler detects this error?

Exercise 2.3 List the entries in symbol table (mapping from names to types) at all the points of the following program:

```
int f(int x) {
    int y = x + x;
    if (y < 10) return f(y);
    else return y-1;
}
```

Exercise 2.4 Try to compile some of your project C code, producing the assembler files (option `-k`). Try to indicate the various elements of C67xx calling convention in the generated assembly code. It is useful to use the `-s` (or `-ss`) option, to get your C source interlined with the assembly code. Also the `-O0` option may cause the generated code to be more readable (lowest optimization level).